

Listing of the Claims:

1. (Previously Presented) A method for analyzing driving data of at least two vehicles involved in a collision, comprising:

calculating a three-dimensional, kinematic model of the at least two vehicles, the model including at least one linear-motion-dynamics signal and at least one lateral-motion-dynamics signal and a radar signal of an adaptive cruise control system of each of the at least two vehicles, wherein the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor, and wherein a time basis for the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal is provided by a real-time clock of at least one of the two vehicles and recorded, and wherein the radar signal of the adaptive cruise control system and the time basis provided by the real-time clock are utilized to form a frame of reference from which the relative positions of the at least two vehicles are determined; and

visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision.

2. (Canceled).

3. (Canceled).

4. (Original) The method as recited in Claim 1, wherein:

the at least one linear-motion-dynamics signal includes at least one of speed signals of all wheels, vehicular-speed signals, longitudinal-acceleration signals, and a GPS signal.

5. (Previously Presented) The method as recited in Claim 1, wherein:

the at least one lateral-motion-dynamics signal further includes at least one of lateral-acceleration signals, and steering-angle signals.

6. (Canceled).

7. (Previously Presented) The method as recited in Claim 1, wherein a rotational-rate signal of an ESP system is utilized as the rotational-rate signal of the yaw sensor.

8. (Original) The method as recited in Claim 1, further comprising:

outputting a message based on the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal in response to a predeterminable event.

9. (Canceled).

10. (Previously Presented) A system for analyzing vehicle data of at least two vehicles involved in a collision, comprising:

a processing unit for calculating a three-dimensional, kinematic model for the at least two vehicles, the model including at least one linear-motion-dynamics signal and at least one lateral-motion-dynamics signal and a radar signal of an adaptive cruise control system of each of the at least two vehicles, wherein the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor, and wherein a time basis for the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal is provided by a real-time clock of at least one of the two vehicles and recorded, and wherein the radar signal of the adaptive cruise control system and the time basis provided by the real-time clock are utilized to form a frame of reference from which the relative positions of the at least two vehicles are determined; and

a display device configured to visually represent the three-dimensional, kinematic model of the at least two vehicles involved in the collision.

11. (Canceled).

12. (Canceled).

13. (Previously Presented) The system as recited in Claim 10, further comprising:

a transmission device for transmitting a message.

14. (Previously Presented) A computer program stored on a computer-readable medium having a program-code that when executed on one of a computer and a processing unit results in a performance of:

calculating a three-dimensional, kinematic model for at least two vehicles involved in a collision, the model including at least one linear-motion-dynamics signal and at least one lateral-motion-dynamics signal and a radar signal of an adaptive cruise control system of each of the at least two vehicles, wherein the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor, and wherein a time basis for the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal is provided by a real-time clock of at least one of the two vehicles and recorded, and wherein the radar signal of the adaptive cruise control system and the time basis provided by the real-time clock are utilized to form a frame of reference from which the relative positions of the at least two vehicles are determined; and

visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision.

15. (Canceled).

16. (Canceled).

17. (Original) The computer program as recited in Claim 14, wherein:

the at least one linear-motion-dynamics signal includes at least one of speed signals of all wheels, vehicular-speed signals, longitudinal-acceleration signals, and a GPS signal.

18. (Previously Presented) The computer program as recited in Claim 14, wherein:
- the at least one lateral-motion-dynamics signal further includes at least one of lateral-acceleration signals and steering-angle signals.
19. (Canceled).
20. (Previously Presented) The computer program as recited in Claim 14, wherein a rotational-rate signal of an ESP system is utilized as the rotational-rate signal of the yaw sensor.
21. (Original) The computer program as recited in Claim 14, an execution of the computer program further comprising:
- outputting a message based on the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal in response to a predeterminable event.
22. (Canceled).
23. (Previously Presented) The method as recited in Claim 1, wherein the real-time clock is automatically calibrated via radio.
24. (Previously Presented) The method as recited in Claim 1, further comprising:
- determining, based on the three-dimensional, kinematic model of the at least two vehicles, a force exerted by the collision on an occupant of at least one of the vehicles; and
- responsive to the determining of the force exerted, transmitting an alert message for delivery to a rescue service, the alert message including an indication of a severity of the collision.

25. (Previously Presented) The system as recited in Claim 10, wherein the real-time clock is automatically calibrated via radio.

26. (Previously Presented) The system as recited in Claim 10, wherein based on the three-dimensional, kinematic model of the at least two vehicles, a force exerted by the collision on an occupant of at least one of the vehicles is determined, and wherein responsive to the determining of the force exerted, an alert message is transmitted for delivery to a rescue service, the alert message including an indication of a severity of the collision.

27. (Previously Presented) The computer program as recited in Claim 14, wherein the real-time clock is automatically calibrated via radio.

28. (Previously Presented) The computer program as recited in Claim 14, wherein the program-code when executed on one of the computer and the processing unit results in a performance of:

determining, based on the three-dimensional, kinematic model of the at least two vehicles, a force exerted by the collision on an occupant of at least one of the vehicles; and

responsive to the determining of the force exerted, transmitting an alert message for delivery to a rescue service, the alert message including an indication of a severity of the collision.